

AGREEMENT TO REPLACE 12th AVENUE LIFT STATION

This Agreement to Replace the 12th Avenue Lift Station is entered into by and among the County of Ottawa, a Michigan county corporation, by and through its Board of County Road Commissioners ("OCRC"), the Charter Township of Georgetown, a Michigan charter township of Ottawa County ("Georgetown"), the Charter Township of Jamestown, a Michigan charter township of Ottawa County ("Jamestown"), and the City of Hudsonville, a Michigan municipal corporation ("Hudsonville") (Georgetown, Jamestown, and Hudsonville are collectively referred to as the "Local Units"), effective as of the date it has been signed by all parties.

RECITALS

A. Pursuant to 1939 Public Act 342, as amended ("Act 342"), the Board of Supervisors of Ottawa County (the "County") made the provisions of Act 342 applicable to the County, authorized and directed that there be established, maintained, and operated under the provisions of Act 342 a county-wide system or systems of water and sewer improvements and services and designated the OCRC to be the County's implementing agency for the purposes of Act 342.

B. The County, acting through the OCRC, is authorized to acquire a sewage disposal system within the County and to improve, enlarge, extend, operate, maintain, repair and replace the same, and the County and Local Units are authorized to enter into a contract for the improvement, enlargement, repair and replacement of such sewage disposal system and for the payment of the costs thereof by the Local Units.

C. As part of such county-wide system or systems of water and sewer improvements and services, the County has previously established a sewage disposal system designated as the Rush Creek Sanitary Sewer System to provide sewer services to the Local Units

D. The Local Units have entered into a number of agreements with the OCRC related to the construction and operation of the Rush Creek Sanitary Sewer System, including the Rush Creek Sewage Disposal System Contract among the OCRC, Georgetown, and Hudsonville dated November 1, 1967; the Agreement among the OCRC, Georgetown, and Hudsonville dated June 1, 1973; the Agreement among the OCRC, Georgetown, and Hudsonville dated February 27, 1975; the Sewage Disposal System Improvements Contract among the OCRC, Georgetown, Jamestown, and Hudsonville dated April 1, 2010, and the Agreement among the OCRC, Georgetown and Jamestown dated January 12, 2012.

E. The parties agree the 12th Avenue Lift Station, a component/facility of the Rush Creek Sanitary Sewer System, has reached the end of its useful life, for the reasons identified in a report by Prein & Newhoff to the OCRC dated March 6, 2012, evaluating improvement options for the 12th Avenue Lift Station.

F. The parties wish to have the OCRC administer the construction project to replace the 12th Avenue Lift Station (the "Project") with a new lift station (the "Lift Station").

G. The Local Units are responsible for the costs of the Project and intend to pay for the Project from their respective cash reserves.

Now, therefore, for good and valuable consideration, including the mutual covenants set forth in this Agreement, the parties agree to the provisions set forth in this Agreement.

1. Lift Station Replacement. The parties agree the existing lift station has reached the end of its useful life and agree to replace it with the new Lift Station meeting the design capacities and specifications set forth in the report of Prein & Newhof dated June 28, 2012, a copy of which is attached as **Exhibit A**.

2. Costs. The parties approve the estimate of the total cost of the Project as detailed in **Exhibit B**. The Local Units agree to pay the full actual costs to construct the Project, including design, engineering, acquisition of land and/or easements, materials, construction, installation, and testing of the Lift Station and the demolition, removal, or release of those parts of the current Lift Station that will be rendered obsolete by the new Lift Station. The estimated periodic expenses for the Project and estimated cash flow necessary to administer the Project are detailed in **Exhibit C**. The Local Units will pay for the total costs of the Project based on the following allocations, with each being separately responsible for its separate allocation:

Georgetown: 47.81%

Hudsonville: 47.57%

Jamestown: 4.62%

3. Implementation. The OCRC will coordinate and implement the Project, including obtaining additional land or easement rights as necessary for the Lift Station, bidding and contracting with engineers and contractors, and other steps it determines appropriate to complete the Project on a timely basis. OCRC agrees to perform this work for a price not to exceed \$27,800, which, as with all costs hereunder, will be shared by the Local Units in accordance with the percentages set forth in Section 2 of this Agreement.

4. Payment. The OCRC will invoice each of the Local Units in accordance with the percentages set forth in Section 2 of this Agreement on a quarterly basis in anticipation of the expenses that will be incurred during that period. Each Local Unit shall pay the invoiced amount within thirty (30) days after the date of the invoice. OCRC shall place funds as received in a construction fund in the name of the OCRC, with all interest earned being credited to the fund. The OCRC will provide the Local Units with a monthly statement of the fund balance. The OCRC may modify the payment schedule by giving the Local Units written notice of the change at least thirty (30) days before the change takes effect. The OCRC will reimburse to the Local Units any surplus funds from the Project in accordance with the percentages set forth in Section 2 of this Agreement within sixty (60) days after making the final payment to the contractor.

5. Overages. The OCRC will notify the Local Units of any expenses that increase the cost above the Project budget for budgeting and planning purposes.

6. Payment Default. If a Local Unit fails to pay the OCRC an invoiced amount within the time provided for any reason, the state treasurer or other official charged with the disbursement of unrestricted state funds returnable or payable to the defaulting Local Unit pursuant to the Michigan Constitution is, by this Agreement, and upon written notice of such default from the OCRC to such state official, authorized to withhold from the Local Unit and deliver to the OCRC sufficient funds to cure the default as stated in the notice. In addition to the foregoing, the OCRC shall have all other rights and remedies provided by law to enforce the obligations of each Local Unit to make payments in the manner and at the times provided.

7. Owner. The OCRC shall be the owner of the Project for the purposes of acquiring the necessary real property and entering into contracts to construct the Project. After the Project is completed, the Lift Station will be considered part of the Rush Creek Sanitary Sewer System for all purposes and be jointly

owned by the Local Units and the OCRC shall take all steps reasonably requested to transfer the Lift Station and its appurtenances to the Local Units.

8. Insurance. The OCRC will require the contractor to obtain workers compensation (statutory), and automotive and general liability insurance for the Project naming the OCRC and Local Units as additional insureds. A copy of the certificates of insurance shall be provided to the Local Units upon request.

9. Indemnification. Unless otherwise agreed by all of the Local Units, the OCRC will represent and defend the Local Units in the event of any legal action arising out of the Project. All costs incurred by the OCRC in such action, including but not limited to legal fees and other items under this section, will be considered a Project expense and paid for by the Local Units. The Local Units shall indemnify and hold the OCRC harmless from and against all liability of any nature whatever for any and all claims, actions, demands, expenses, damages and losses of every kind, including but not limited to liability for injuries to or death of persons and damages to or loss of property, asserted by or on behalf of any person, entity, or governmental authority arising out of, resulting from, or in any way connected with the Project, and pay, indemnify and save the OCRC harmless from and against all costs, attorney fees, and disbursements of any kind or nature incidental to or incurred in prosecuting or defending said claims, demands, or any of them, in the event it is determined that there is any liability on the part of the OCRC. Within sixty (60) days after the entry of any final judgment or a final award by an arbitration panel against the OCRC on any claim, action, demand, expense, damage or loss, and written demand for payment, the Local Units shall be obligated to pay to the OCRC the amount thereof. OCRC will not settle any such action or proceeding without the consent of the Local Units. Notwithstanding the foregoing, the Local Units will not be obligated to indemnify or hold the OCRC harmless against any liability which it would otherwise have arising from intentional or grossly negligent actions or omissions on the part of the OCRC or its agents with respect to the Project.

10. Notices. All notices and other documents to be served or transmitted hereunder shall be in writing addressed to the respective parties hereto at the addresses set forth below or such other address or addressee as shall be specified by the intended recipient party from time to time and may be served or transmitted in person or by ordinary mail properly addressed with sufficient postage.

OCRC
Director of Utilities
P.O. Box 739
Grand Haven, Michigan 49417

City of Hudsonville
City Manager
3275 Central Blvd.
Hudsonville, Michigan 49426

Georgetown Charter Township
Township Manager
P.O. Box 769
Jenison, Michigan 49429-0769

Jamestown Charter Township
Township Manager
P.O. Box 88
Jamestown, Michigan 49427

11. Signing Authority. The individuals executing this Agreement below personally warrant to the other parties that the individual, in executing this Agreement, is acting with full authority to bind the respective parties to the terms of this Agreement and that evidence of such authority shall be submitted upon request.

12. Amendment, Waiver. This Agreement may not be amended, changed, modified, altered, assigned, or terminated without the written consent of all parties. A waiver by any party hereto of a breach or

violation of any provision of this Agreement shall not be a waiver of any subsequent breach of the same or any other provision of this Agreement.

13. Interpretation. If any provision of this Agreement is held to be invalid or unenforceable in any respect, the remaining provisions shall remain in effect and be construed without regard to the stricken provision. The headings of the sections in this Agreement are for ease of reference and shall be disregarded in construing it. All exhibits attached hereto are hereby incorporated as though fully stated herein.

14. Binding Effect. This Agreement shall bind and benefit the parties and each of their respective successors and assigns.

15. Execution. This Agreement may be executed in any number of counterparts. Signatures transmitted electronically shall be deemed originals.

To witness their agreement, the parties have executed this Agreement as of the date beneath their respective signatures, the latest date being the effective date of this Agreement.

OTTAWA COUNTY, by and through its
Board of County Road Commissioners

By: Thomas E. Bid
David VanderKooi, its Chairman
Thomas Bid Vice

By: Mike Mikita
Mike Mikita, its Secretary

Dated: 10-4-12

CITY OF HUDSONVILLE

By: Donald Van Doeselaar
Donald Van Doeselaar, its Mayor

By: Jan Wiersum
Jan Wiersum, its Clerk

Dated: 9-18-12

GEORGETOWN CHARTER TOWNSHIP

By: D. Dale Mohr
D. Dale Mohr, its Supervisor

By: Richard Vanderklok
~~Del South~~, its Clerk
Richard Vanderklok

Dated: _____

JAMESTOWN CHARTER TOWNSHIP

By: James Miedema
James Miedema, its Supervisor

By: Ruth Pruis
Ruth Pruis, its Clerk

Dated: 9-17-12

**OTTAWA COUNTY ROAD COMMISSION
12TH AVENUE LIFT STATION
LIFT STATION IMPROVEMENT OPTIONS**

The original lift station improvement report dated March 6, 2012 has been revised as follows in accordance with discussions with the Ottawa County Public Utilities Department.

Existing Operating Conditions

The 12th Avenue Lift Station collects wastewater from Georgetown Township via a 24 inch influent gravity sewer with a capacity of 3,120 gpm. The lift station has three pumping units each rated for 1,600 gpm at 30 feet TDH based on the pump nameplate. The lift station has a 16 inch force main with an approximate capacity of 3,150 gpm (at 5 ft/s). The force main discharges to a 24 inch gravity sewer that has a capacity of 3,100 gpm based on pipe capacity, but is limited to 3,000 gpm based on the agreement between Ottawa County, Georgetown Township and the City of Hudsonville.

Hydraulic Analysis

In order to evaluate the current station operation, historical flow data from the last year was analyzed. Unfortunately, the accuracy of the data is questionable and therefore could not be relied upon. Examples of suspect data include:

- Numerous instances where the average pumping rate exceeds the capacity of the lift station and the downstream sewer.
- The generally dry month of July averaged 2.2 MGD compared to 1.7 MGD in the generally wet month of April.

The data is most likely inaccurate due to improper installation of the flow meter. The meter does not have adequate upstream separation from the tee and isolation valve. In addition, the high velocities through the small diameter pump discharge piping may be causing cavitation which would also add to the error of the meter.

Analysis of the pump run times provides evidence that the existing pumps are able to handle the current average daily flow. The lift station operates approximately 13 hours per day and the two pumps alternate operation. Actual peak flow rates are unknown, though the data seems to indicate numerous occasions where two pumps were required to operate in order to meet the flow demand.

Lift Station Improvements

The county requested that two lift station improvement options be reviewed; retrofit the existing station or completely rebuild the station. Both options would include all new pumps, motors with variable frequency drives, valves, piping, the construction of a control building, and other miscellaneous equipment. Both options also include the need for bypass pumping.

The required firm capacity of the station would be 3,000 gpm to match the upstream and downstream sewer capacities as closely as possible without exceeding the capacity set forth in the agreement between Ottawa County, Georgetown Township and the City of Hudsonville.

Option No. 1 – Retrofit

One option for improving the lift station is to utilize the existing can and wet well structures and replace only the equipment. The benefit of this option is that it reduces the costs of excavation and dewatering.

There are several drawbacks to retrofitting the existing lift station, including:

- The pump control valves are undersized for the application resulting in energy inefficiency and increased wear from cavitation due to extremely high velocities. There is minimal available room to increase the valve size.
- The side outlet tee on the discharge piping appears to custom made and will be difficult to replicate.
- There is little or no room for flexible couplings to allow for intolerances associated with replacement piping. This will make reconstruction very difficult.
- The flow meter is not installed per installation standards. There is inadequate upstream separation from the tee and isolation valve, and there is no room to gain the required separation. A separate meter chamber is required.
- The bottom of the can is rusting and may be structurally compromised. The corrosion protection system should be tested and possibly replaced.
- The equipment is packed very tightly in the can and there is little space available for maintenance.
- Maintenance on the equipment requires entry into the can which is a confined space.
- The wet well liner system has failed and there are signs of concrete corrosion of the structure. Significant rehabilitation will be required for reuse.
- The operating levels of the wet well relative to the influent sewer result in air bound pumps caused by cascade aeration. A diversion baffle will be required to minimize the aeration.
- The risk associated with a long bypass pumping duration during construction.

Converting the existing lift station from a triplex to a duplex pumping system was pursued as a potential way to create additional work space in the pumping chamber. There is a minor cost savings associated with eliminating the third pump, however, in addition to the previously explained drawbacks, a duplex system is not recommended due to the lack of pump redundancy in maintenance and emergency conditions. If this option is pursued then field measurements would be required to ensure that the larger pumping units would fit in the pumping chamber.

Option No. 2 – Replace

The other option for improving the lift station is to construct a new station adjacent to the existing site. The county requested that the new lift station use submersible pumping units. The drawbacks of building a new lift station are the same as the benefits to retrofitting the existing lift station: the costs associated with excavation and dewatering.

The benefits of a new station include:

- More available space for ease of maintenance. No confined space entry required.
- More efficient piping configuration resulting in smaller motors and lower energy costs.
- Less wear on valves and piping due to slower velocities.
- No concern or risk regarding structural integrity of existing structures.
- Longer design life due to all new structures and piping.
- The existing station could remain on line during construction resulting in significantly less bypass pumping.

The estimated cost of constructing a new replacement lift station is found in Exhibit 1. Figure 1 provides an approximate layout of the replacement station.

Odor and Corrosion Control

A biofilter system may be warranted for the lift station regardless of which improvement option is selected. The recurring corrosion, foul smell, and dark colored wastewater observed in the wet well are indications that there may be a hydrogen sulfide problem in the collection system. Additional testing is required in order to determine the magnitude of the problem and the associated cost of corrective measures. An approximate cost for installing a biofilter system at the lift station is provided in Exhibit 3.

Force Main

The existing asbestos cement force main is over 40 years old and is nearing the end of its design life. The structural integrity of the pipe is currently unknown, but over time asbestos cement pipe can become quite brittle. The force main could be televised and cleaned for approximately \$5,000.

There are several options for improving the force main with approximate costs ranging from \$130,000 to \$170,000. Each improvement option has associated risks and benefits that must be carefully considered. Force main improvement options include the following:

- Remove and replace existing force main
- Directional drill new force main
- Open cut new force main
- Burst existing force main with new force main
- Install cured-in-place-pipe within the existing force main

An approximate cost for improving the force main is provided in Exhibit 2.

Construction Time Frame

Given the proximity of the lift station and force main relative to the school, construction would ideally occur in the summer months when school is out of session. Assuming a substantial completion date of August 31, 2013, design for the project should start no later than June, 2012. This allows adequate time for shop drawings and delivery of equipment with long lead times. The suggested dates assume that any additional property and easements can be acquired within the allotted time frame and that staging of construction equipment will be allowed during the month of May, 2013.

Exhibit 1: Estimate of Probable Cost - Replace

Owner:

Georgetown Charter Township

Project Title:

12th Avenue Lift Station Improvements

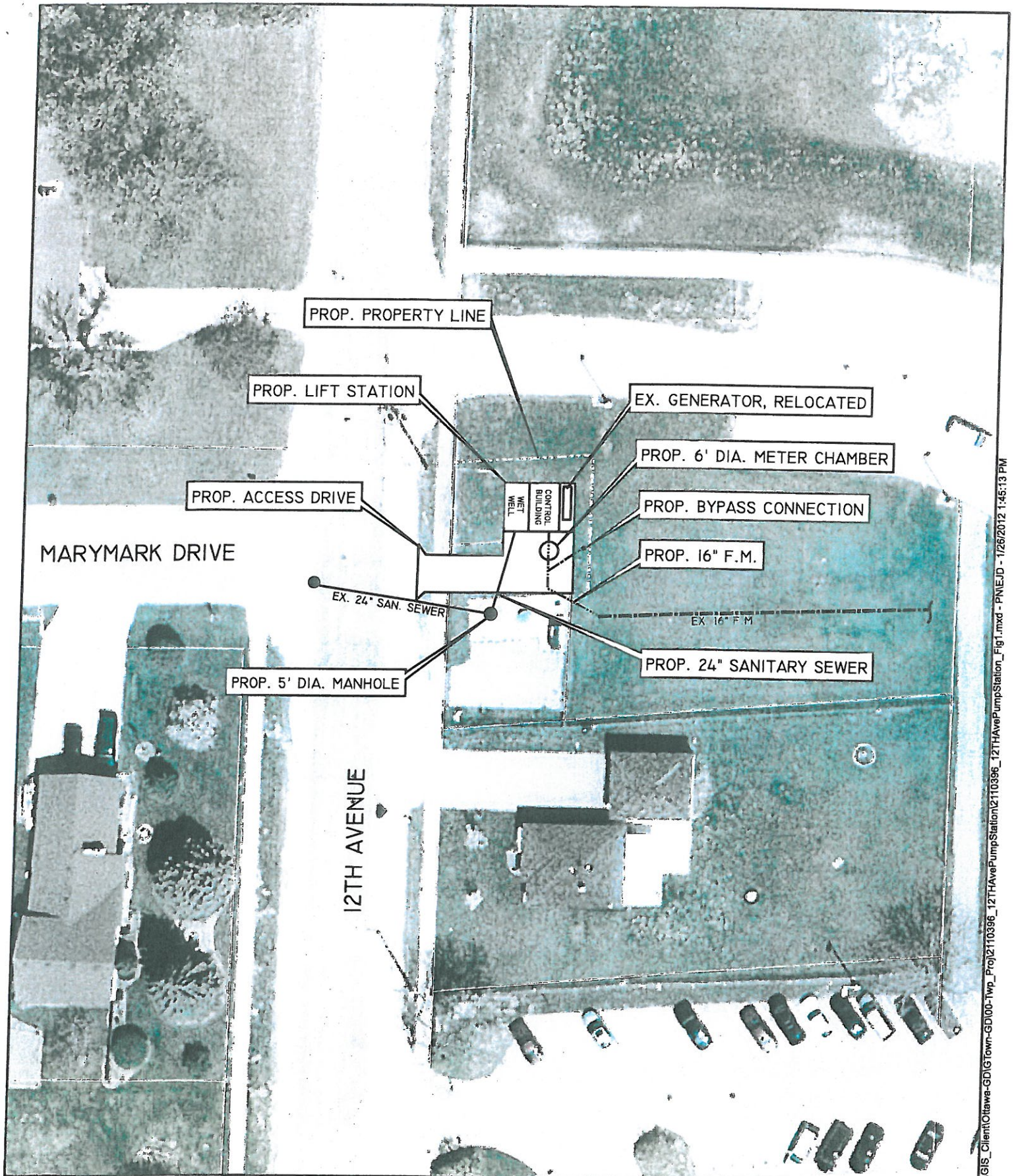
Date:

June 27, 2012

Project #:

2110396

Item No.	Description	Quantity	Unit	Total Amount
1	Bypass Pumping, Including Flow Through Line Stop	1	l.s.	\$50,000
2	Wet Well Cleaning	1	l.s.	\$10,000
3	Demolition and Abandonment	1	l.s.	\$20,000
4	Excavation and Dewatering	1	l.s.	\$160,000
5	Wet Well and Valve Chamber Structures	1	l.s.	\$110,000
6	Pumps, Valves, and Piping	1	l.s.	\$183,000
7	Yard Piping, Including Sanitary Manhole	1	l.s.	\$55,000
8	Meter Chamber	1	l.s.	\$45,000
9	HVAC and Misc. Mechanical	1	l.s.	\$25,000
10	Electrical, Including VFDs, Wiring, Etc.	1	l.s.	\$65,000
11	Instrumentation and Controls	1	l.s.	\$55,000
12	Control Building	1	l.s.	\$35,000
13	Paint - Valve Chamber Piping, Control Room, Generator	1	l.s.	\$5,000
14	Restoration	1	l.s.	\$7,000
15	Land Acquisition Allowance	1	l.s.	\$10,000
Total Construction Estimate:				\$835,000
Allowance for Engineering and Contingencies				\$251,000
Total Estimated Cost				\$1,086,000



SCALE: 1" = 40'

OTTAWA COUNTY ROAD COMMISSION
Georgetown Township, Ottawa County, MI

12TH AVENUE LIFT STATION

FIGURE 1 - REPLACEMENT

Peter & Newhof
2110396

Exhibit 2: Estimate of Probable Cost - Additional Items

Owner:

Georgetown Charter Township

Project Title:

12th Avenue Lift Station Improvements

Date:

June 27, 2012

Project #:

2110396

Item No.	Description	Quantity	Unit	Total Amount
1	Force Main Replacement:	1	l.s.	\$150,000
2	Odor Control System	1	l.s.	\$160,000
Total Construction Estimate:				\$304,000
Allowance for Engineering and Contingencies				\$92,000
Total Estimated Cost				\$396,000

Exhibit B

12th Avenue Lift Station Improvements		
Item	Description	Revised Total
1	Bypass Pumping, Including Flow Through Line Stop	\$ 50,000.00
2	Wet Well Cleaning	\$ 10,000.00
3	Demolition and Abandonment	\$ 20,000.00
4	Excavation and Dewatering	\$ 160,000.00
5	Wet Well and Valve Chamber Structures	\$ 110,000.00
6	Pumps, Valves and Piping	\$ 183,000.00
7	Yard Piping, Including Sanitary Manhole	\$ 55,000.00
8	Meter Chamber	\$ 45,000.00
9	HVAC and Misc. Mechanical	\$ 25,000.00
10	Electrical Wiring, etc.	\$ 65,000.00
11	Instrumentation and Controls	\$ 55,000.00
12	Control Building	\$ 35,000.00
13	Paint - Valve Chamber Piping, Control Room, Generator	\$ 5,000.00
14	Restoration	\$ 7,000.00
15	Land Acquisition	\$ 3,000.00
16	Force Main Replacement	\$ 150,000.00
17	Odor Control System	\$ 160,000.00
	Total Construction Cost	\$ 1,138,000.00
18	Engineering and Inspection Services	\$ 198,000.00
19	Project Administration	\$ 27,800.00
20	Contingencies	\$ 74,200.00
	Total Project Cost	\$ 1,438,000.00

Exhibit C

Billing Date	Total Amount	Georgetown Twp	Hudsonville	Jamestown
		47.81%	47.57%	4.62%
direct bill	\$ 75,000.00	\$ 35,857.50	\$ 35,677.50	\$ 3,465.00
10/01/2012	\$ 70,000.00	\$ 33,467.00	\$ 33,299.00	\$ 3,234.00
01/01/2013	\$ 40,000.00	\$ 19,124.00	\$ 19,028.00	\$ 1,848.00
04/01/2013	\$ 500,000.00	\$ 239,050.00	\$ 237,850.00	\$ 23,100.00
07/01/2013	\$ 750,000.00	\$ 358,575.00	\$ 356,775.00	\$ 34,650.00
10/01/2013	\$ 3,000.00	\$ 1,434.30	\$ 1,427.10	\$ 138.60
	\$ 1,438,000.00	\$ 687,507.80	\$ 684,056.60	\$ 66,435.60